

FINGER PRINTS AND PERSONALITY SCORES

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Summary.—200 university students were tested to determine whether or not different types of finger prints were associated with personality test data. Comparisons were made between the three main finger-print types: loop, whorl and arch, on each of the 10 digits for each scale on the Sixteen Personality Factor Questionnaire (16 PF). Subjects with arches on their left index fingers or left middle fingers scored significantly higher on the Neuroticism factor (forthright versus shrewd) than people who had whorls on these fingers. However, no obvious large or simple relationships were found in this preliminary study between the 16 PF scores and finger-print types.

The possible prediction of human behavior from morphological characteristics of the body has fascinated both charletons and scientists. One form of this concept involves the use of finger prints to predict or diagnose diseases or personality disorders. Although the modern study of dermatoglyphics is relatively well established for certain genetic disorders (Uchida & Soltan, 1969), the use of finger prints to differentiate people prone to abnormal behaviors has been less successful.

The possibility that different types of finger prints may be correlated with *normal* behavioral patterns has not been investigated systematically. In this preliminary study, a total of 200 university students (77 males and 123 females), with a mean age of 23.4 yr. (standard deviation = 6.7), were finger printed and given one of the two forms of the Sixteen Personality Factor Questionnaire (16 PF). All subjects were first-year psychology students and received bonus marks for participating in the experiment.

Each of the fingers and thumbs for each subject was printed using a printing kit and the procedure of the local police department. The Henry Finger Print system along with some FBI additions were used to interpret each finger print. Although eight sub-classes were determined, they were collapsed into the three main finger-print classifications: loop, whorl, and arch for the present analyses.

Frequency distributions of the three main finger-print types for each of the 10 digits were determined for males and females separately. Since there were no obvious sex differences, the combined frequencies for the 200 subjects were calculated. The percent of students displaying each type of print on each digit (left hand/right hand) were, thumbs: loop (62.5/61.0), whorl (35.5/33.0), and arch (2.0/6.0); index finger: loop (52.5/56.6), whorl (35.0/28.5), arch (12.5/15.0); middle finger: loop (77.5/69.0), whorl (15.0/19.0), arch (7.5/12.0); ring finger: loop (57.5/60.5), whorl (38.5/36.5), arch (4.0/3.0), and little finger: loop (88.0/85.0), whorl (10.5/12.5), and arch (1.5/2.5). The mean frequency of occurrence of each print type was 67%, 26%, and 7% for the loops, whorls and arches, respectively.

One-way analyses of variance for each of the scales from the 16 PF as a function of print type (loop, whorl, arch) were completed for each of the 10 digits. Because the number of analyses of variance generated was large ($10 \times 16 = 160$), the sig-

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nificance level was set at $p \leq .01$. The one-way analyses demonstrated significant differences between the three print types for the left index finger ($F = 6.71$, $df = 2/197$) and for the left middle finger ($F = 6.45$, $df = 2/197$) on the N factor (forth-right versus shrewd) scale only.

The means and standard deviations (ns in parenthesis) of this factor for the loops, whorls and arches were 4.58 ± 2.15 (113), 5.77 ± 2.54 (57) and 4.13 ± 2.43 (30) for the left index finger and 4.93 ± 2.29 (138), 5.50 ± 2.46 (38), and 3.37 ± 2.16 (24) on the left middle finger, respectively. *A posteriori* tests indicated that the primary differences existed between the subjects with the arches and the subjects with the whorls on these two fingers.

According to the interpretation of the N factor, people with arches on the left middle or left index fingers would be more unsophisticated, sentimental, simple, and awkward than people with whorls on these fingers. The person who scored lower on this factor (arches) would also be more natural and spontaneous while the person who scored higher (the whorls) would tend to have an unsentimental approach (akin to cynicism) to situations.

The small numbers of subjects in the major groups (whorls and arches) and the absence of very large differences tend to dampen any enthusiasm about this line of research. However, consequent multivariate analyses may yield recondite patterns. The usefulness (if any) of this measure as a predictor or discriminator of human behavior should be based upon empirical conclusions rather than speculative opinion.

REFERENCES

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